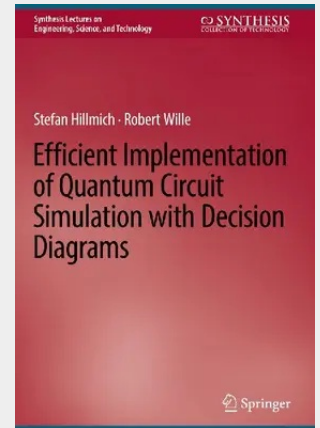


Efficient Implementation of Quantum Circuit Simulation with Decision Diagrams

This book provides an easy-to-read introduction into quantum computing as well as classical simulation of quantum circuits. The authors showcase the enormous potential that can be unleashed when doing these simulations using decision diagrams—a data structure common in the design automation community but hardly used in quantum computing yet. In fact, the covered algorithms and methods are able to outperform previously proposed solutions on certain use cases and, hence, provide a complementary solution to established approaches. The award-winning methods are implemented and available as open-source under free licenses and can be easily integrated into existing frameworks such as IBM's Qiskit or Atos' QLM.

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